

Assam Electricity Regulatory Commission

Notification

The 9th October, 2017

AERC (Micro/Mini-Grid Renewable Energy Generation and Supply) Regulations, 2017

No. 638/2017 - In exercise of powers conferred by Section 181 read with Sections 13, 14, sub-section (h) of section 61, 66, clause (e) and (k) of sub-section (1) of section 86 of the Electricity Act, 2003 (36 of 2003) and all other powers enabling in this behalf, the Assam Electricity Regulatory Commission (AERC) hereby makes the following Regulations, namely:

REGULATIONS

1. Short Title and Commencement:

- (1) These Regulations shall be called the AERC (Micro/Mini-Grid Renewable Energy Generation and Supply) Regulations, 2017
- (2) These Regulations shall apply to whole state of Assam.
- (3) These Regulations shall come into force from the date of publication of this notification in the Assam Gazette.

2. Definitions and Interpretations :- In these Regulations, unless the context otherwise requires,

- a) "**Act**" means Electricity Act, 2003 (36 of 2003);
- b) "**Billing Cycle**" means the billing frequency for electricity bill raised by the Micro/Mini-Grid Operator to the consumer or to the Distribution Licensee;
- c) "**Commission**" means the Assam Electricity Regulatory Commission constituted under the Act;
- d) '**Compulsory Supply Hours**' or CHS: means the supply during 17:00 hrs to 23:00 hrs each day or as amended by the Commission from time to time through an order.
- e) "**Detailed Project Report (DPR)**" means a detailed report consisting of technical, financial and environmental aspects, etc. related to the Micro/Mini-Grid project;
- f) "**Distribution Franchisee (DF)**" means a person authorized by a Distribution Licensee to supply electricity on its behalf in a particular area within his area of supply;
- g) "**Distribution Franchisee Agreement**" (**DFA**) means the Agreement between the Distribution Licensee and the Distribution Franchisee.
- h) "**Distribution Franchisee Fees**" is the fee to be paid by the Micro/Mini-Grid Operator to the Distribution Licensee as per the DFA;

- i) "**Distribution Licensee's System**" means the system of wires and associated facilities between the delivery points on the transmission lines or the generating station connection and the point of connection to the installation of the consumers;
- j) "**Feed-in-Tariff**" (FiT) means the tariff for procurement of electricity by the Distribution Licensee from the Micro/Mini/Mini-Grid based renewable energy system as determined by Assam Electricity Regulatory Commission pursuant to Section 61(h)/62 of the Act;
- k) "**Grid Arrival**" means extension of Distribution Licensee's system in the Micro/Mini/Mini-Grid area;
- l) "**Interconnection Point**" means the interface point for supply of electricity from the Micro/Mini/Mini-Grid Renewable Energy System to the Distribution Licensee's System;
- m) "**Micro/Mini-Grid Area**" means the areas where electricity would be supplied through Micro/Mini/Mini-Grid projects by the Micro/Mini/Mini-Grid Operator under these Regulations;
- n) "**Micro/Mini-Grid Operator**" (MGO) means a person, a group of persons or local authority or Panchayat Institution or users' association or co-operative societies or non-governmental organizations or Registered Society or a company that constructs or commissions, operates and maintains Micro/Mini/Mini-Grid Renewable Energy System within the State of Assam for generation and supply of electricity in the Micro/Mini-Grid areas and has agreed to operate under these Regulations;
- o) '**Mini-Grid/ Mini-Grid Project**' means the project comprising of renewable energy based electricity generation system having capacity of above 10 kWp and upto 500 kWp and supplying electricity to the consumers (including but not limited to households small and medium scale enterprises, telecom towers, etc.) through the Power Distribution Network and/or selling electricity to the Distribution Licensee in the Mini-Grid Areas as per the provisions laid.
- p) '**Micro-Grid/Micro-Grid Project**' means the project comprising of renewable energy based electricity generation system up to a capacity of 10 kWp and supplying electricity to the consumers (including but not limited to households small and medium scale enterprises, telecom towers, etc.) through the Power Distribution Network and/or selling electricity to the Distribution Licensee in the Micro-Grid Areas as per the provisions laid.
- q) "**Micro/Mini-Grid Renewable Energy System (MRES)**" means the stand alone power plant generating electricity using renewable energy source in the Micro/Mini/Mini-Grid area for supply to consumers and/or to Distribution Licensee;
- r) "**Mutually Agreed Tariff**" means a Tariff mutually agreed between the MGO and the Consumers. This may be either in terms of Energy or Fixed or both.
- s) "**Obligated Entity**" means the entity mandated under clause (e) of subsection (1) of section 86 of the Act to fulfill the Renewable Purchase Obligation and identified under AERC (Renewable Purchase Obligation and its compliance) Regulations, 2010 and subsequent amendments thereof;

- t) **"Power Purchase Agreement" (PPA)** is an Agreement between Distribution Licensee and MGO for the purchase of electricity generated from the MRES upon interconnection with grid;
- u) **"Primary Distribution Network" (PDN)** means the distribution infrastructure owned by MGO for supplying electricity generated from the MRES to the consumers in the Micro/Mini-Grid area as per safety measures specified under Section 53 of the Act and as per the CEA Regulation Measures related to safety & Electric supply 2010 as amended from time to time.
- v) **"Renewable Energy Certificates" (REC)** means the Certificates issued in accordance with the procedures specified by the Central Electricity Regulatory Commission through Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate Renewable Energy Generation) Regulations, 2010 as amended from time to time;
- w) **"Renewable Energy Sources"** means renewable sources such as small hydro, wind, solar, biomass, bio fuel, urban or municipal solid waste and other such sources as approved by the MNRE from time to time for generation of electricity;
- x) **"Renewable Purchase Obligation" (RPO)** means the requirement as specified under clause (e) of sub-section (1) of Section 86 of the Act, for the obligated entity to purchase electricity generated from renewable energy sources;
- y) **'Rural Area'** means the areas which are not notified as urban areas by the Government of Assam;
- z) **"State Nodal Agency"** means the nodal agency at the state level for promotion of grid connected renewable energy and off-grid renewable energy in the state of Assam. The New and Renewable energy wing of APDCL shall act as the State Nodal Agency for Micro/Mini/Mini grid projects for the time being until replaced by an order of the Commission.
- aa) **"Tariff Period"** means the period for which FiT is to be determined by the Commission for the electricity generated from MRES;
- bb) **'Year'** means a Financial Year.

Part – A

Scope and Application

3. Scope of Regulations and Extent of Application:

- (1) These Regulations shall apply to new & existing Micro/Mini-Grid projects for generation and supply of electricity to consumers in the rural areas in the State of Assam. The existing Micro/Mini-Grid projects shall within six months of notification of these Regulations, comply with the Central Electricity Authority (Measures relating to safety and Electricity supply) Regulation 2010 and Central Electricity Authority (Technical

Standards for Connectivity of the Distributed Generation Resources) Regulation 2012 as amended from time to time.

- (2) The Mini Grid projects with installed capacity of 10 KW Up to 500 KW shall be governed by these Regulations;
- (3) The Micro Grid projects with installed capacity up to 10 KW shall be governed by these Regulations;

Part – B

General Principles & Operational Framework

4. Model for Business Operations:

- (1) MGO may implement Micro/Mini-Grid projects for supply of electricity in Micro/Mini-Grid areas where grid is not in existence under following operational model or any subsequent model as approved by the Commission in future:
 - a) i) MGO who proposes to construct, commission, operate shall apply to the Distribution Licensee before implementation of the Micro/Mini-Grid projects for generation and supply of electricity through PDN in areas where Distribution Licensee's System doesn't exist.
 - ii) The Distribution Licensee shall give no objection certificate (NOC) within 15 days of receipt of the proposal from the MGO, if they do not have any plan for extension of the Grid in the near future and an agreement between Distribution Licensee and MGO shall be executed in this regard.
 - iii) The Distribution Licensee shall prepare a model agreement for execution with MGO and submit to the Commission for approval within 3 months from the date of notification of these Regulations.
 - b) i) MGO shall be entitled to supply entire quantum of electricity generated from the Micro/Mini-Grid projects to the consumers within the Micro/Mini Grid area at mutually agreed tariff with the consumers.
 - ii) Upon grid arrival, MGO shall generate and supply entire electricity generated to the Distribution Licensee at the interconnection point at FiT determined by the Commission.

The Distribution Licensee shall have to purchase the entire quantum of electricity generated from such projects at the FiT determined by the Commission in accordance with the National Tariff Policy notified on 28th January 2016.
 - c) i) The MGO may transfer ownership of PDN conforming to the standards of Distribution Licensee's system to Distribution Licensee with mutual consent based on book value of assets on the date of transfer.
 - ii) The book value of the asset shall be mutually agreeable between the MGO and the Distribution Licensee. However, in case of any dispute the book value of the asset shall be determined by a third party agency engaged for this purpose. The cost for valuation of assets by the third party shall be equally borne by the MGO and the Distribution Licensee.

- d) i) Upon grid arrival and interconnection of PDN with the grid, the Distribution Licensee shall take over the Billing and Collection activity of the consumers in accordance with the retail Tariff order of the Commission.
- ii) The Distribution Licensee may engage the MGO as Distribution Franchisee for operation, maintenance and Revenue collection in that area. For this purpose a Distribution Franchisee agreement shall be executed between the MGO and concerned Distribution Licensee.
- iii) The modalities of operation of the Distribution Franchisee along with detail terms and condition shall be finalized by the Distribution Licensee with intimation to the Commission and shall be a part of the DFA.

Part – C

Technical Framework

5. Technical Standards for PDN:

- (1) Technical Standards for construction of PDN shall be as per the standard followed by Distribution Licensee in accordance with the Central Electricity Authority (Technical Standard for construction of Electrical Plants and lines) Regulations, 2010 as amended from time to time.
- (2) MGO shall be responsible for safe Operation and Maintenance of the PDN as per the CEA (Measures relating to Safety and Electric Supply) Regulations, 2010 as amended from time to time.
- (3) Technical Standards for Distribution Licensee's network shall be shared by the Distribution Licensee with the MGO for proper implementation.
- (4) State Nodal Agency may appoint third party agency for verification of technical standards of PDN.

6. Technical Standards for Interconnection with the Grid:

- (1) Central Electricity Authority (Technical Standards for connectivity of the Distributed Generation Resources) Regulations, 2013 as amended from time to time shall be applicable for interconnection of the Micro/Mini-Grid project with the Grid.
- (2) The cost for interconnection network from the MRES to the Interconnection point shall be borne by the MGO.

7. Safety Measures for Micro/Mini-Grid projects:

The installations of electrical equipment must comply with Central Electricity Authority (Measures of Safety and Electric Supply) Regulations, 2010 as amended from time to time.

8. Metering Arrangement:

- (1) All the meters shall adhere to the standards and provisions specified in CEA (Installation and operation of meters) Regulations, 2006 as amended from time to time.
- (2) Distribution Licensee shall install meter(s) at the interconnection point for energy accounting purpose.
- (3) The cost for installation of meter(s) at interconnection point shall be borne by the Distribution Licensee.
- (4) MGO shall install meter as per the following requirements:
 - (a) Generation meter at the Micro/Mini-Grid project to record the generation of electricity; and
 - (b) Meter(s) at each of the outgoing feeder(s) from the Micro/Mini-Grid project.
 - (c) Meter(s) at consumers premises to record the electricity consumption of the consumer.

Part – D Commercial Framework

9. Energy Accounting and Settlement for supply to consumers before Grid Arrival:

MGO shall mutually decide with the consumers the Tariff for supply and the billing and payment mechanism. The same along with projects details shall be submitted to the Commission at least a month before the commencement of Operation

10. Energy Accounting and Settlement for supply to Distribution Licensee after Grid Arrival:

- (1) Upon Grid Arrival the entire energy generated by Micro/Mini Grid shall be purchased by the Distribution Licensee as per Regulation 4 b(ii).
- (2) MGO shall raise monthly bill against the electricity injected to the Distribution Licensee's system at the interconnection point based on the consumption recorded by the meter during the previous month.
- (3) The Distribution Licensee shall make payment of the bill to the MGO within 15 days from the date of issue of the bills.
- (4) The other terms and conditions of payment and contract shall be as per the PPA executed between the MGO and Distribution Licensee.
- (5) The Distribution Licensee shall raise bill against the individual consumers in the area as per the retail Tariff approved by the Commission.

11. Energy Accounting and Settlement for Distribution Franchisee activities:

- (1) The MGO if engaged as a Distribution Franchisee shall bill the consumers in the area as per the retail Tariff approved by the Commission.
- (2) MGO shall raise bill to Distribution Licensee for Distribution Franchisee activities as per the terms of the DFA.
- (3) The other terms and conditions shall be covered in the DFA.

12. Renewable Purchase Obligation:

The quantum of electricity generated from the MRES shall qualify towards compliance of RPO by the obligated entities.

13. Renewable Energy Certificate mechanism:

Applicability of REC shall be based on the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 or as amended from time to time.

Part – E Contractual Framework

14. Power Purchase Agreement:

For sale and Purchase of electricity generated from MRES, MGO and the Distribution Licensee shall enter into a PPA. The Distribution Licensee shall prepare a draft PPA and submit to the Commission for approval within 3 months from the date of notification of this Regulation.

15. Revocation of Agreements:

In case of termination of Agreement(s), the Distribution Licensee and MGO shall follow the process specified in the PPA and DFA (as may be applicable).

16. Exit Options:

- (1) The MGO, who intend to exit from the Micro/Mini-Grid project shall have to serve notice on the Distribution Licensee, State Nodal Agency with intimation to the Commission about his intension of exit prior to 90 days of his exit.
- (2) The Exit options will be governed by the Agreement(s) signed by the MGO and Distribution Licensee.
- (3) Distribution Licensee may take over the MRES from the MGO as per terms of the agreement and may operate of its own.

Part – F Roles and Responsibilities of Stakeholders

17. State Nodal Agency:

In order to facilitate smooth and effective implementation of these Regulations, the State Nodal Agency shall have following roles and responsibilities:

- (a) Provide inputs to the Commission for determination of FiT for MRES as and when required;
- (b) To initiate a process to keep track of Micro/Mini-Grid project development in the State;
- (c) To facilitate MGO to operate the Micro/Mini-Grid Project within an applicable supply model;
- (d) To support the Commission and furnish information sought from time to time in order to effectively implement the Regulations.
- (e) To administer exit requests of MGO; and
- (f) Any other matter entrusted by the Commission from time to time.

18.Distribution Licensee:

Distribution Licensee shall be responsible for the following activities:

- (a) To specify and share the technical standards of Distribution Licensee's system;
- (b) The Distribution Licensee shall provide NOC to the MGO within one month of receiving application from MGO;
- (c) The Distribution Licensee shall enter into the PPA with the MGO upon Grid arrival and facilitate inter-connection;
- (d) The Distribution Licensee may enter into the DFA (if applicable) with the MGO.
- (e) To provide necessary information to the Commission as ask for time to time.

19.Micro/Mini-Grid Operator:

MGO shall be responsible for the following activities:

- (1) MGO shall generate and supply electricity to consumers in the Micro/Mini-Grid areas;
- (2) The Micro/Mini-Grid project shall conform to technical standards and safety measures specified in the Regulations.
- (3) Execute the functions as outlined under PPA and DFA (as applicable) with the Distribution Licensee of the area upon interconnection with grid.
- (4) In case of any default and breach of conditions by the consumers, including but not limited to non-payment, theft, misuse, misrepresentation, fraud, the MGO shall be entitled to take an appropriate action as per the relevant provision of the Act and Rules and Regulations made there under.
- (5) To provide necessary information to the Commission as ask for time to time.

20. Consumers in the Micro/Mini-Grid area:

Consumers shall be responsible for the following activities:

- (1) Consumers in the identified Micro/Mini-Grid area shall regularly pay the electricity charges to the MGO, based on the mutually agreed tariff.
- (2) Upon Grid arrival the consumer shall regularly pay the electricity charges to the Distribution Licensee as per the retail Tariff of the respective categories.
- (3) Consumers shall adopt Energy Efficient measures by using Energy Efficient appliances and reduce the overall electricity consumption.

Part - G

Miscellaneous

21. Payment Security

- (1) The Distribution Licensee shall prioritize making payments to MGO wherever such payments are due to MGO under the PPA or otherwise.
- (2) The cost of power purchased from the Micro/Mini Grid project by the Distribution Licensee shall be recovered and form a part in the ARR and will also qualify for RPO obligation.

22. Formation of Technical Committee

- (1) Technical Committee will be constituted at the state level by the Commission.
- (2) The Committee will have representations from State Nodal Agency, Micro/Mini-Grid Operator and Distribution Licensee, not below the rank of Chief Engineer.
- (3) The Committee will supervise the overall progress of the proposed activities for effective implementation of the Regulations.

23. Grievance Redressal Mechanism:

- (1) The Commission shall resolve any conflict between MGO and the concerned Distribution Licensee(s).
- (2) Grievance of any consumer shall be redressed as per AERC (Redressal of Consumer Grievances) Regulations, 2016.

24. Implementation Guidelines:

- (1) Within three months of official notification of these Regulations, the Distribution Licensee shall develop Implementation guidelines governing the Micro/Mini-Grid project framework with following considerations:
 - (a) Technical standards for construction of PDN;
 - (b) Technical standards for interconnectivity of the Micro/Mini-Grid project with the grid;
 - (c) Migration options within a model;
 - (d) Principles of Distribution Franchisee agreement; and
 - (e) Any other relevant matter for implementation of the Regulations.
- (2) The Implementation Guidelines shall be approved by the Commission.

25. Power to give directions:

The Commission may, from time to time issue such directions and orders as considered appropriate for implementation of these Regulations.

26. Power to Relax:

The Commission may by general or special order(s), for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected, may relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person.

27. Power to remove difficulties:

If any difficulty arises in giving effect to any of the provisions of these regulations, the Commission may, either suo motu or on an application made to it, by general or special order, direct the licensee/ generator or any other person to take suitable action, not being inconsistent with the Act, which appears to the Commission to be necessary or expedient for the purpose of removing the difficulty.

28. Power to amend:

The Commission may from time to time add, vary, alter, suspend, modify, amend or repeal any provisions of these Regulations.

By order of the Commission

S.K. Roy
Secretary
Assam Electricity Regulatory Commission